DOCUMENT RESUME

ED 175 010 CS 205 046

AUTHOR Grunig, James E.
TITLE An Assessment of Economic Education Programs for Journalism Students.
PUB DATE Aug 79
NOTE 39p.: Paper presented at the Annual Meeting of the Association for Education in Journalism (62nd, Houston, Texas, August 5-8, 1979)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Business: Change Strategies: Changing Attitudes: College Majors: Consumer Education: *Economic Education: Economics: Information Needs: *Information Seeking: *Journalism Education: Knowledge Level: Models: Negative Attitudes: *Public Opinion: Public Relations: *Student Attitudes

ABSTRACT

Situational theory was used to isolate two kinds of publics from a sample of 294 journalism and business students to determine whether journalism majors would fit better into different publics and use different cognitive strategies than would students more interested in or more favorable toward business. In contrast to the traditional "domino" model underlying most businesses' public economic education programs (in which knowledge level is directly related to favorable attitudes and favorable behavior), situational theory explains which economic education programs will work for different publics by the varying attitudes those publics have in varying situations. The students in this study indicated their reactions to nine situations involving basic business situations, business consequences, and business relations with government and noted whether they would seek more information about particular situations. The business students fit into publics with high probabilities of communicating both about issues affecting people directly (pollution, quality of products) and about less involving issues (corporate profits, government regulation). Journalism students fit into publics that communicate only about high involvement issues. Variables relating to the knowledge gap hypothesis, however, explain more differences between publics than the variable "college major." (RL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED175010

Public Relations Division

AN ASSESSMENT OF ECONOMIC EDUCATION PROGRAMS FOR JOURNALISM STUDENTS

by

James E. Grunig
Professor of Journalism

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

James E. Grunig

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

College of Journalism
University of Maryland
College Park, Maryland 20742

(301) 454-5772

Paper presented to the Public Relations Division, Association for Education in Journalism Annual Convention, Houston, Texas, August 5-8, 1979.

CS 205046

AN ASSESSMENT OF ECONOMIC EDUCATION PROGRAMS FOR JOURNALISM STUDENTS

James E. Grunig[1]

"Big Business Has a 'Black Eye,' Pollster Gallup Says." This recent newspaper headline[2] typifies the negative attitude toward large corporations that is supposedly rampant among the American public, especially among young people.[3] Partly in an attempt to improve the public's attitude toward business, many large corporations and associations have developed economic education programs aimed at one of four groups: the public-at-large, employees, students, and journalists.

Corporate leaders often express the fear that a public with negative evaluations of business will also be willing to abandon the free enterprise system. As a result, many economic education programs have been hard-sell advertising campaigns to promote free enterprise. Several surveys have shown, however, that free enterprise is not the issue: 80% or more of the public supports the system and believes it offers a better life than alternative systems.[4]

More often, however, economic education programs are built upon the frequent research finding that those members of the public with the most knowledge of business and economics have the most positive attitudes toward business.[5] At the same time, surveys show the public has little knowledge about business and economics. Gallup, for example, reported, "People overestimate the amount of profits and underestimate the amount of taxes generated by big business. They also underestimate labor costs."[6] A typical economic education program tries to correct these factual misunderstandings and develop an understanding of such basic economic principles

as the role of profits and capital in the economic system. The hoped for consequence of such a program is a more positive attitude toward business which supposedly results from a better knowledge of economics.

A survey by Barlow and Kaufman showed that chief executive officers of major corporations regard students as the top priority public for economic education. Students are good targets for economic education because they have not formed hardened attitudes toward business and, as Gallup indicated, have more negative attitudes toward business. Thus, it is not surprising that recently economic education programs have been developed for journalism students, in an attempt to counteract supposed disinterest, misinformation, and negative attitudes of journalists toward business.

For example, the National Association of Manufacturers has taken an extensive program to several journalism schools,[8] Bethlehem Steel has conducted an executive-in-residence program for journalism schools in its employment area,[9] and General Motors has developed a contest for journalism students to solicit ideas on the responsibilities of business and the media to one another.[10] Most of these programs for journalism students include speeches on profits, government regulation, import quotas, etc., as well as press conferences and dialogue sessions between journalism students and business representatives.

An analysis of the rationale behind economic education programs shows that a basic model of communication underlies most programs, including those aimed at journalism students. That model is basically the following:

Messages ⟶ Knowledge ⟶ Attitudes ⟶ Behavior

The model states that messages (an economic education program) increase knowledge about a subject or issue, which in turn leads to more favorable attitudes, and in turn leads to behavior compatible with the interests of the organization providing the message. Recent communication research, however, casts doubt on the validity of this model, and it must be evaluated before an economic education program can be evaluated.[11]

Knowledge, Attitudes, and Behavior

The above model could be called the domino model of communication. Public relations professionals find the model especially attractive because it implies that a properly constructed message will, through a sequential "domino" effect, eventually result in desirable behavior. The model bears little relationship to actual human behavior, however, because it represents a physical science explanation of human behavior. A researcher using a physical science approach assumes that forces of nature determine human behavior in a law-like relationship, and that once the critical variables of nature are determined human behavior can be predicted and controlled. Although forces of nature may control the behavior of physical objects, human beings differ because they have the power to control their own behavior if they wish to do so.[13]

The domino model has repeatedly been shown to be an unrealistic account of human behavior, precisely because it fails to recognize that human beings can exert control at each of the four stages of the model. They may select only messages they deem to be relevant, retain only relevant knowledge, construct and reconstruct attitudes as the situation changes, and behave in seemingly inconsistent ways in different situations.

Research over the last 20-30 years has gradually shown the weakness of two of the three links in the model. The strongest link lies between messages and knowledge. In two reviews of research on environmental communication, for example, Stamm found support for the proposition that information campaigns can increase public knowledge about the environment. But he found little support for the linkages between knowledge and attitudes and attitudes and behavior.[14]

LaPiere showed over 40 years ago that the linkage between attitude and behavior is an inconsistent one.[15] Festinger also reviewed a number of studies relating attitudes and behavior, and failed to find a consistent relationship.[16] Crespi has argued that the connection is stronger when more specific attitudes are measured. He argues in part that "attitudes change, develop, and atrophy in reaction to socially defined situations and experiences."[17] He is, therefore, dropping the most common definition of an attitude, that it is a cross-situational predisposition to respond which determines behavior in specific situations. If attitudes are more specific, then they would have to be defined as judgements which people develop in specific situations and use to define their behavior in those situations. In other words, this definition would assume that people control attitudes, and that attitudes do not control people.

Research has also shown the weakness of the knowledge-attitude linkage. For example, several studies tested the relationship between knowledge about ecology and the environment and attitudes favorable to preserving the environment, much the same relationship as that assumed to exist between economic knowledge and attitudes favorable to business and free enterprise. Tichenor et al. found, for example, that when an environmental problem

involved a community that the people most opposed to restrictive environmental measures were also the most knowledgable.[18] Burrus-Bammel found that although a forest camp changed both knowledge and attitudes, knowledge and attitudes were not related.[19] In a study of an Iowa reservoir project, Bultena et al. found that residents with the most knowledge about the project had the strongest attitudes, both for and against the project.[20] Grunig and Stamm successfully predicted which people would have environmental attitudes and when they would have none. But they also found that in many situations people would "hedge" their attitudes; that is, hold two seemingly inconsistent attitudes at the same time.[21] Their research indicates that economic education studies such as that by Barlow and Kaufman, which found a correlation between economic knowledge and favorable attitudes toward business, might also have found a similar correlation between knowledge and unfavorable attitudes had they looked for such a possibility.

One must conclude that the domino model which underlies most economic education programs has serious deficiencies. An assessment of economic education programs aimed at journalism students, therefore, would be more valid if it were based upon a theory which provides a more realistic explanation of human behavior. Such a theory must be a situational theory which does not assume that people's attitudes and behavior are consistent across situations. It should assume that people will communicate about some situations and not about others, and that they develop and use new and different attitudes to define behavior as the situation changes.

A Situational Theory

In previous research, I have developed a situational model of communication behavior which explains how a person generally perceives a situation before he communicates about it, thus indicating which situations a person needs information about. The theory also explains the nature of a person's communication behavior, making it possible to predict which kinds of media or public relations programs will be most successful in reaching that person. Multivariate statistical techniques have been used to group people into publics with similar communication behaviors and to evaluate the success of public relations media and campaigns aimed at those publics. To date studies have been done of employee publics of two business firms and a large governmental research agency,[22] community publics of a suburban hospital,[23] consumer publics of a supermarket chain,[24] publics arising from issues of corporate social responsibility,[25] and publics arising from environmental issues.[26]

In other research, Stamm and I have developed a situational theory of attitudes to go along with the situational theory of communication behavior.[27] I have used the situational theory of attitudes in studies of public opinions toward corporate social responsibility [28] and toward the environment.[29]

The result of this research is a theory which can identify publics based on similar situational perceptions and behaviors, predict the communication behaviors of these publics, and describe the "attitudes" which these publics develop in specific situations. The situational theory describes when and how people control their communication behavior and attitudes and seems to provide a more realistic model of human behavior than does the conventional domino model. The purpose of this study, therefore, was to apply the theory to economic education programs aimed at journalism students, to assess the

The combination of these two concepts can be interpreted as four types of perceived situations. The behaviors resulting from these perceived situations have been called problem-facing behavior (high problem recognition, low constraint recognition), constrained behavior (high problem recognition, high constraint recognition), routine behavior (low problem recognition, low constraint recognition), and fatalistic behavior (low problem recognition, high constraint recognition).

For each of these perceived situations, the person may also have available a referent criterion from another situation, the third variable in the theory. A person has a referent criterion when he has an "attitude" which tells him what to do in the situation. Thus, the referent criterion is a situational reformulation of the concept of an attitude. Whereas attitude theory assumes that the cross-situational attitude is manifested as a behavior consistent with the attitude in a specific situation, the referent criterion is assumed to be a guide or rule learned in previous situations which the person uses with discretion in a new situation. In a new situation, the person may apply the referent criterion as an initial guide for resolving the situation. If the old criterion "works" the person will use it to guide his behavior. If it does not seem to work he develops a new solution--a new criterion--to guide his behavior in the new situation.

In addition to its relationship to other behaviors in a situation, the presence of a referent criterion also influences a person's communication behavior in that situation. On the one hand, the referent criterion subsumes what a person has learned in previous, related situations and thus it may reduce his need for new information to deal with a new situation. However, research has also shown that a referent criterion is present under the same

conditions as when a person communicates; that is, high problem recognition and low constraint recognition. When a person is motivated to communicate about a situation, he is also motivated to develop a solution (an "attitude") for that situation. Generally, then, the two forces tend to cancel each other out, although the second relationship seems strongest. As a result a referent criterion has been found to have a weak positive relationship with communication behavior.

Whereas the first three variables of the theory explain why a person communicates or does not communicate, the fourth explains whether his communication behavior will be active information seeking or passive information processing. A person's perceived level of involvement is defined as the extent to which the person connects himself with objects in the situation. When a person perceives himself as involved in a situation, he actively seeks information because his own behavior is involved and he needs information to help design and control that behavior. When involvement is low, however, a person will passively process information that comes to him without any effort on his part.

When the four combinations of problem recognition and constraint recognition are further subdivided by the level of involvement and the presence or absence of a referent criterion, the result is a typology of 16 types of communication behavior which can be used to identify types of publics. Conditional probabilities of information seeking and processing have been computed for each of the 16 categories, which closely match the theoretical predictions of the theory.[32] A manager can use these probabilities to decide whether the probability of success for either information seeking or processing makes a public relations program aimed at a public worth the expense.

Previous studies have used the theory to isolate publics for each of several situational issues. In studies of the publics arising on corporate social responsibility issues, for example, these issues included pollution, support of charities, inflation, corporate profits, and quality of products and services, among other issues. Because as many as 16 different types of publics could emerge for each issue, multivariate techniques have been used to sort publics into a smaller, more manageable typology. This sorting process is based on two possibilities. First, different issues may bring about the same publics--e.g., most people who are in one type of public on the pollution issue will be in the same type of public on the quality of products and services issue. Second, the same people may group together on different issues but the type of public which that group characterizes may change from issue to issue--e.g., a group may be a high-involvement, problem-facing public on the pollution issue but a low-involvement, fatalistic public on the support of charities issue.

Multivariate procedures have been used in these previous studies to group publics into fewer categories. The most frequent procedure has been to use factor analysis to group situations that bring similar responses from the same person for each of the six variables of the theory and then to use canonical correlation to relate the factors resulting for the situational and communication variables to each other. The canonical variate scores then have been used to identify people who group together--sometimes in different types of publics--for different issues.[33]

The situational theory explains communication behaviors and can be used to define publics. In addition, the referent criterion concept indicates how cross-situational attitudes function in specific situations. Further development of a situational concept of attitude, however, has been based on

Stamm's theory of cognitive strategies[34] Stamm's cognitive strategy concepts grew out of efforts to apply the cross-situational concept of attitude to conservation issues. He identified two attitudes toward conservation which he expected people to apply consistently for different conservation issues. Although Stamm's data showed that people often applied the two attitudes across issues, individuals sometimes held both attitudes for an issue even though the attitudes seemed incompatible[35] In other cases, individuals switched their attitudes from one issue to another. To explain these anomalies, Stamm conceptualized two types of cognitive strategies, hedging and wedging. A person hedges when he supports more than one solution to a problem. A person wedges when he supports one attitudinally consistent solution across issues.

Research relating these strategies to the four concepts of the situational theory has shown that the situational concepts predict when a person will have a cognitive strategy but not which cognitive strategy he will have, just as the concepts predict when a person will communicate.[36] The theory explains when a person thinks about a situation, when he communicates to supplement his thinking, and when he develops a strategy to plan his behavior in the situation. The variables of the theory thus seem to be necessary conditions for all four elements of the "domino" theory described above. They explain when a person will seek or process a message, which is necessary before he can retain the message as knowledge. They also explain when the person will develop an attitude and design a behavior. But the theory would maintain that each person controls the attitude or behavior which he uses in each situation and that specific attitudes and behaviors cannot easily be predicted.

Research has also shown that people apply some cognitive strategies across situations as a referent criterion--as in the traditional concept of attitude--and develop other strategies specifically for a single situation. For example, the environmental research showed that people tend to apply a restrictive environmental solution as a referent criterion across situations--and wedge--until they perceive an involvement in the situation. Then they hedge by combining the restrictive solution with a solution which calls for replacing rather than saving a polluted or depleted resource.

The cognitive strategy concepts can be applied to attitudes toward business--and economic education--if one recognizes that on most issues, a pro-business or -free enterprise position and an anti-business or -free enterprise position can be stated. Most attitude scales currently in use have been developed from the assumption that a person cannot be both for and against something at the same time. Thus, the pro- and anti-business positions are stated as opposite ends of a continuum. However, it is logically possible to be for and against something on the same issue. An attitudinal statement usually asserts that certain consequences of a policy or behavior will occur and that these consequences are good or bad. For example, a person might be asked to what extent he agrees with the statement that "free enterprise results in more efficient allocation of resources than socialism." A person might agree with that statement and also agree that "socialism results in more equitable income distribution than does capitalism." A person who agrees with both statements would hedge his attitudes toward free enterprise, a person who agrees with only one would wedge.

In addition, cognitive strategies change as situations change. That is, a person may wedge in favor of business on some issues, such as the effects of free enterprise; hedge on others, such as the effects of

government regulation; and wedge against business on others, such as pollution. In other words, people may seldom apply cross-situational attitudes (for or against business) consistently across situations. More often, they may make judgements about the consequences which business has in particular situations and agree or disagree with both sides of a controversy.

Conceptualization of the Study

To test the validity of these situational concepts in planning and evaluating an economic education program, a study was designed in which the concepts were used to assess one type of economic education program--one aimed at journalism students.

The first step in applying the situational theory to a specific public relations program is to identify those situations which the program is designed to communicate about. Publics then can be identified for each issue, and their communication behaviors and cognitive strategies can be described. A review of economic education materials produced by several organizations showed that the situations discussed in these programs could be placed into three categories: basic economic principles and workings of the business system, consequences of business activities (such as pollution or quality and price of products) and business relations with government.[37]

For this study three situations were chosen in each of these three categories. The three basic business/economic situations included size of corporate profits, alternative economic systems such as free enterprise vs. socialism, and supply and demand. The three business consequences included quality of goods and services, prices of goods and services, and pollution. The three governmental relationships were government regulation of business, taxation of business, and government spending.

To determine whether journalism students would fit into different publics and use different cognitive strategies than students who might be expected to be more interested in and more favorable toward business, both journalism students and business students were included in the study. Several demographic and attitudinal variables were also measured, in addition to the student's major, in an attempt to discriminate student publics from one another. These variables included major, number of business and economic courses taken, grade point average, attitude toward business, attitude toward government, political philosophy, political party affiliation, own or parent ownership of corporate stock, readership of business publications, readership of the newspaper business page, age, parent education, sex, and race. Scales measuring basic economic knowledge and exposure to recent economic news in the mass media were also constructed to confirm the communication behaviors predicted by the situational theory and to relate that theory to previous studies of economic understanding and attitudes.

The study measured three hypotheses (predicted relationships between variables) and two research questions (descriptions of a single variable). The hypotheses were designed to test the premises of the theory, the research questions to describe the publics for an economic education program and to determine their cognitive strategies. The hypotheses were:

H_1: The probability of information seeking behavior will increase with an increase in problem recognition, level of involvement and presence of a referent criterion, and decrease with an increase in constraint recognition.

H_2: The probability of information processing behavior will increase with an increase in problem recognition and presence of a referent criterion and decrease with an increase in constraint recognition.

H_3: The situational variables will define publics arising from the nine business and economic situations and explain the communication behavior of these publics.

The research questions were:

Q_1: Will a student's major, educational and demographic background and cross-situational attitude toward business and government discriminate the publics defined by the situational variables from one another?

Q_2: What cognitive strategies will the publics defined by the situational variables use to resolve different business and economic issues?

Methodology

A sample of business and journalism students at the University of Maryland was developed by administering a questionnaire to all students taking courses required of all majors in their respective professional colleges. The questionnaire was completed by students in all sections of the business law course in the College of Business and Management and by students in four historical, legal, and theory courses required of journalism students. The total sample size was 294, of which approximately half were business and half journalism students. Some students majoring in neither business nor journalism were in the sample because they were enrolled in the courses in which the questionnaire was administered. Journalism majors specializing in public relations as opposed to journalism were separated for analysis.

The four independent variables of the situational theory were measured by asking respondents, for each of the nine situations: 1) Do you stop to think about the issue often, sometimes, rarely, or never (problem recognition)? 2) Do you see a strong, moderate, or weak connection between yourself and the issue (level of involvement)? 3) Could you do a great deal, something, very little, or nothing personally to affect the way the issue is handled (constraint recognition)? and 4) Do you have a very clear idea, somewhat

clear idea, hazy idea or no idea of what to do about the situation (presence of a referent criterion)? Each of these question wordings had been developed, tested, and improved in previous studies.

To measure information seeking, respondents were presented with a hypothetical booklet or report title related to each of the nine situations and asked (on a four-point scale) how likely they would be to send for the booklet or report if they saw an announcement or advertisement offering the material. (In fact, many economic education advertising campaigns have offered such material.) To measure information processing, respondents read opening lines from a television news story related to each situation and were asked (on a four-point scale) how much attention they would pay to the rest of the story. The two longer-term communication variables, exposure to economic news and economic knowledge, were both measured by asking five multiple choice questions and summing correct responses into a 5-point scale.

The demographic variables used to discriminate publics were measured through straight-forward questions. Cross-situational attitude toward business was measured with a 5-point scale asking if respondents supported or opposed business in the United States. Cross-situational attitude toward government was measured with a similar scale asking if government had too much or too little power in the United States.

Because of the limitation of questionnaire space, the cognitive strategy variables were measured for only three of the nine situations, one from each of the basic categories. Respondents indicated on a 5-point scale the extent to which they agreed with a pro-business statement and an anti-business statement related to each situation. On government regulation, for example, the pro statement read "Government regulation increases the prices of goods and services produced by business" and the con statement read

"Without government regulation corporations would be less likely to make socially responsible decisions." Wedging scores were the absolute value of the difference between the scores on the two statements. Hedging scores were computed by adding the two scores and subtracting the absolute value of their difference (to eliminate the possibility that a high score on one and a low score--e.g., a 1 and a 5--would give the same value as a moderate score on both--e. g., a 3 and a 3). The two moderate scores should indicate hedging but a low and a high score should not.

The first two hypotheses, which predicted that probabilities of information seeking and processing would be consistent with the situational theory, were tested by dichotomizing the situational and communication variables and calculating conditional probabilities of information seeking and processing associated with each of the 16 kinds of communication behavior which result from combinations of the four variables. These probabilities were then compared with similar probabilities in previous studies. Each situation was treated as a single unit of analysis in calculating the probabilities. Thus, they were based on 2,646 situations (9 situations X 294 respondents).

Hypothesis 3, that the situational variables would isolate publics and explain their communication behaviors, was tested through the use of factor analysis and canonical correlation. The factor analysis grouped the nine situations into categories which bring about similar publics. Canonical correlation simultaneously relates a set of independent variables (the factor scores of the situational variables) to a set of dependent variables (the factor scores of the communication variables). The result was a set of canonical variates which were used to identify publics and explain their communication behaviors.

The two research questions were addressed by placing respondents into publics based upon the canonical variable for which they had the highest canonical variate scores. Respondents below the mean on all canonical variates were placed into a no-public category. To answer the first research question, discriminant analysis was used to determine which demographic variables and cross-situational attitudes would discriminate one public from another. To answer the second research question, respondent scores on the cognitive strategy variables were broken down by publics, and one-way analysis of variance was used to determine significant differences between publics.

Results

Hypotheses 1 and 2

Table 1 presents the set of conditional probabilities calculated in this study for the 16 combinations of the situational theory. The probabilities in Table 1 are consistent with the predictions of the theory as specified in Hypotheses 1 and 2, namely that both information seeking and processing will increase with increases in problem recognition and presence of a referent criterion and decrease with an increase in constraint recognition. Level of involvement was predicted to increase information seeking but not to affect information processing. These probabilities are also remarkably consistent with those calculated in four other studies.[38] The only deviation from the theory in Table 1 is a tendency for information processing to drop off more from high to low involvement than it has in previous studies. In line with the theory, however, information processing does remain relatively high under all low-involvement conditions.

Hypothesis 3

Hypothesis 3 stated that "The situational variables will define publics arising from nine business and economic situations and explain the communication behavior of these publics." Tables 2 and 3 present preliminary data relevant to testing that hypothesis.

Table 2 presents mean scores on the four situational perception variables, indicating which issues are most likely to bring forth communicating publics. These data indicate that problem recognition and level of involvement are highest for the business consequences issues and lower, in order, for the governmental relationship issues and basic economic situations. The student respondents also were less likely to perceive constraints and more likely to have a referent criterion for the business consequences than for the other two sets of issues. Thus, for all students sampled, Table 2 would indicate that the students sampled would generally be more interested in economic education information related to business consequences than in information related to the other situations.

Table 3 presents the results of the factor analyses which were conducted separately for each of the six variables in the situational theory to group the nine situations into a smaller number of categories. For each variable, two factors resulted, with an eigen value greater than 1.0. These factors were called the high-involvement situations factor and the low-involvement situations factor. The three business consequences situations--the situations with the highest levels of involvement in Table 2--loaded consistently highest on the high involvement factor for all variables. The other six situations loaded consistently highest on the low-involvement factor.

Factor scores for the two factors for each of the six situational variables and the scales for exposure to economic news and basic economic knowledge then were used as input to a canonical correlation analysis, which provided the principal test of Hypothesis 3. Table 4 shows that two statistically significant variates resulted from the canonical correlation analysis. The first of these variates describes a set of situational perceptions and communication behaviors that would be characteristic of a public communicating about both sets of business/economic situations. The second variate describes the perceptions and communication behaviors of a public communicating only about the high-involvement business consequences.

The public described by the first variate would fit into a moderate-to-high involvement, problem facing category on both sets of situations and would have a referent criterion on the low-involvement issues but not the high-involvement issues. The probabilities of information seeking and processing are high for this public on both sets of issues, and the canonical coefficients in the bottom half of Table 4 confirm these probabilities. Actual exposure to economic news also is high, and economic knowledge is positive although not high.

For the second variate, one should note first that level of involvement is positive but not high for both sets of issues. Thus, the predicted probabilities included for this variate in Table 4 are an average of the high-and-low-involvement cells in Table 1 for the behavior type involved. Variate 2 describes a moderate-involvement problem facing public with a referent criterion on the high-involvement situations and moderate-involvement fatalistic behavior public without a referent criterion on the low-involvement situations. The probability of information seeking and processing is high for the high-involvement business situations and low for the low-involvement business

situations, and the coefficients in the bottom half of Table 4 confirm these probabilities. The scores for the exposure to economic news scale (of which most items were related to low-involvement situations) and the economic knowledge scale were low for this variate, however.

One should also recognize the moderate involvement scores for both publics on all of these situations. They probably indicate that information processing would be a more feasible way of reaching these publics than information seeking. However, because the involvement scores were high for most respondents on the high involvement situations, one can say that the lack of variance kept the involvement coefficients low for the high-involvement situations and that information seeking will occur for both publics on these issues.

In summary, Table 4 does describe a set of student publics, and the situational perceptions relate to the communication behaviors as the theory specifies. Thus, we can conclude that Table 4 provides strong support for Hypothesis 3; the situational perceptions do explain the communication behaviors of the publics.

Research Question 1

Given these two types of student publics, Research Question 1 asked what kinds of students make up these publics. The discriminant analysis reported in Table 5 shows which characteristics of the students best discriminate one public from another. As discussed above, those respondents with scores below the mean on both canonical variates were placed into a third, no-public group. The maximum number of discriminating functions in a discriminant analysis is always one less than the number of groups, in this case the maximum is two functions. The second function shown in Table 5 does

not explain a significant amount of variance left unexplained by the first function, primarily because the second function is essentially the obverse of the first. There is enough new information in the second function, however, to make its interpretation informative even though it is not statistically significant. The first function essentially separates the high and low involvement issues public from the high involvement issues only public and the no-public group. The second function helps to describe somewhat more the high involvement issues only public.

The high and low involvement issues public consists more of business students than journalism and public relations students. Members of this public are not Republicans, are both blacks and white, are males, have educated parents, are older, neither they nor their parents own stock, and have higher grade-point averages. Further confirming their expected communication behavior, they report reading business publications and the newspaper business page. When asked what their general attitude is toward business and government, this public says it supports business and thinks government has too much power. The only surprising score for this public is the negative relationship with the number of business and economics courses taken.

Function II describes the high involvement issues only public as consisting of more journalism and public relations students than business students. Most of this public's characteristics are opposite those of the other public: Republican party, black race, female, lower parent education, lower age, more stock ownership, lower grade point average, and less support of business. The characteristics which are not opposite are readership of business publications and the business page, and the attitude that government has too much power.

We can conclude from Table 5, then, that business students are more likely to communicate about both high and low involvement situations and journalism and public relations students only about high involvement, business consequences, issues. The high/low involvement public also supports business more than the high only public, but both have negative attitudes toward government. The high/low public also consists of better students who tend to be male and white and whose parents have more education. Thus, major in the university does affect a student's interest in business and economics. More importantly, perhaps, the interest of the high/low public in both kinds of issues may be better explained by the educational background and intellectual ability of these students than by their major.

Research Question 2

The second research question asked what cognitive strategies the publics defined by the situational issues will use to resolve business and economic issues. The data relevant to that question should indicate whether publics have consistent attitudes for or against business on different issues, whether students oppose business points-of-view in general, and whether journalism students are more or less biased against business than business students. The breakdown of the cognitive strategy variables by public in Table 6 generally shows few significant differences between publics. The situational differences between issues and some of the differences between publics, however, are quite revealing.

Many opinion polls have shown that the public supports business and free enterprise in general but opposes many specific business actions which have negative consequences for the public. This is also evident in Table 6 for the business consequences issue, pollution. The total sample is most likely to take an anti-business position on this issue, agreeing that

governmental pollution controls are necessary to protect the environment and to wedge this position against the pro business position that government pollution controls reduce the productivity of business. This pattern is strongest for the high and low involvement issues public, which has the most business students and the most knowledge about business. The differences between publics are not significant, however, and all fit the same pattern.

For the basic economic situation, supply and demand, all publics have low scores on all four cognitive strategies. In this case, however, the high/low public has the lowest scores on all variables, significantly lower on the hedging variable. The two attitude statements on supply and demand were controversial: "In a free enterprise system, the law of supply and demand guarantees that consumers receive the highest quality goods and services at the lower possible prices" vs. "Large corporations can set their own prices free of the law of supply and demand." Yet, most of the students seemed to be neutral about the system, especially those who know the most about it.

The government regulation of business issue brought both high pro- and anti-business positions, and as a result the highest hedging scores, especially by the high/low involvement issues public. Those who knew the most about economics agreed with both sides of the issue: that government regulation increases prices and also that it forces businesses to make socially responsible decisions. Thus, as speculated earlier, knowledge may be correlated with opinions on both sides of an issue.

Conclusions and Implications

The results of this study seem to have implications at three levels for economic education programs: for the theory underlying economic education, for planning economic education programs in general, and for planning economic education programs for journalism students in particular.

First, the study provides strong support for using the situational theory described here over the conventional "domino" model for planning a program of economic education. The first link in the domino theory, between message exposure and knowledge, found support in this study, as it has in other studies. Those students who sought or processed the most information had the most economic knowledge. But the linkage between knowledge and attitude was refuted as it has been in many other studies. The public with the most knowledge sometimes had a strong anti-business position, sometimes had no strong position, and sometimes took both positions. The study also refuted the cross-situational definition of attitudes. The public which was pro-business and anti-government on a broad attitudinal measure was anti-business and pro-government in some specific situations. In contrast to the domino model, the situational theory received strong support in this study, as the data clearly supported its predictions.

Secondly, this study has implications for most economic education programs. The characteristics of the high and low involvement issues public, in contrast with the high involvement issues only public, seem to fit the knowledge gap hypothesis proposed and modified by Tichenor et al.[39] When an issue does not directly involve most people--such as most business and economic issues--only those people with more education and knowledge will seek, or even process, the information. As a result, a campaign to increase knowledge levels on these kinds of issues will generally widen the knowledge

gap between the information rich and the information poor. As this study showed, most traditional economic education programs about profits, free enterprise, and the like will be sought or processed only by those who already know the most about business and economics and thus will do little to solve the problem for which the program was intended.

On the other hand, when a situation involves most people, the knowledge gap generally disappears because people are motivated to seek out, or at least to process, information related to the situation. That seems to be the case for situations in which business has direct consequences upon people, such as pollution, poor quality products, or high-priced products. Similar results have been found in another study of public opinions toward corporate social responsibility. For most publics, therefore, the best economic education program would seem to be simply a two-way public relations program in which a corporation attempts to learn from the public what adverse consequences it is having upon the public and tells the public why those consequences have occurred and what the corporation is doing to eliminate those consequences--e.g., explaining what it is doing to clean up pollution. The results of this study show that the public will be open-minded in such a dialogue, taking a business position when it is reasonable, an anti-business position when that is reasonable, and both positions when both are reasonable. Many corporations now are moving to this kind of dialogue economic education program: question-and-answer sessions with employees and dialogues between corporate executives and teachers or students.[40]

Finally, this study implies that economic education programs for journalism students should also be in the form of dialogues about the adverse consequences of business and what business is doing about them. This study showed journalism students more often are in the high involvement issues only

public than in the high- and low- involvement public. As a result, they are unlikely even to process information about the low-involvement issues, as evidenced by the high levels of conversation in back rows and frequent "nodding off" when visiting executives talk about the evils of government regulation or the need to restrict imports rather than talking about cleaning up pollution, building products that work, or reducing the cost of overpriced products.

FOOTNOTES

1. This study was conducted as part of the Seminar in Corporate Communication, College of Journalism, University of Maryland. Students in the seminar, who played an invaluable role in designing and executing the study, included Karla Rabin, Alison Lapetina, Ken Kalman, Debra Epstein, and Janet Cunningham. Statistical analyses were done at the University of Maryland Computer Science Center with financial assistance of the Center.

2. Washington Star, February 16, 1979, p. E-5.

3. Gallup also cited the negative attitudes of young people in Ibid. For another recent study of attitudes toward business, see U. S. News and World Report, The Study of American Opinion: 1978 Summary Report, Washington, D. C.

4. Seymour Martin Lipset and William Schneider, "How's Business? What the Public Thinks," Public Opinion 1 (July/August 1978), pp. 41-47; Washington Star, op. cit.; Walter Barlow and Carl Kaufmann, "Public Relations and Economic Literacy," Public Relations Review 1 (Summer 1975), pp. 14-22.

5. Barlow and Kaufman, op. cit.

6. Washington Star, op. cit.

7. Barlow and Kaufmann, op. cit.

8. National Association of Manufacturers, "Covering the Economics/Business Beat: Current Issues and Future Opportunities," Special Report on Pilot Project Workshop Held at the University of Maryland College of Journalism, Washington, D. C., 1976.

9. A two-day program was conducted at the University of Maryland in 1978 and again in 1979.

10. "Business and the News Media, What are the Roles of Each?", 1979 General Motors Business Understanding Program, Detroit: General Motors, Inc. 1979.

11. For a review of much of this research see James E. Grunig, "Review of Research on Environmental Public Relations," Public Relations Review 3 (Fall 1977), pp. 36-58 and James E. Grunig, "A Situational Explanation of Environmental Communication Behaviors and Attitudes: Two Studies," unpublished manuscript submitted for publication, November 1978.

12. For further discussion of this idea, see James E. Grunig, "The Status of Public Relations Research," invited paper presented to the Association for Education in Journalism, Seattle, Washington, August 1978, also scheduled to be published in International Public Relations Association Review in April 1979.

13. Tirone has also argued that it is impossible to discover laws in the the social sciences. James F. Tirone, "Education, Theory, and Research in Public Relations," Public Relations Review 5 (Spring 1979), pp. 15-25.

14. Keith R. Stamm, "Environment and Communication," in F. Gerald Kline and Phillip J. Tichenor (eds.), Current Perspectives in Mass Communication Research, (Beverly Hills: Sage Publications, 1972), pp. 265-294 and Keith R. Stamm, "Conservation Communications Frontiers: Reports of Behavior Research," in Clay Schoenfeld (ed.), Interpreting Environmental Issues," (Madison, Wis.: Venbar Educational Research Services, Inc., 1973), pp. 227-236.

15. Richard T. LaPiere, "Attitudes vs. Actions," Social Forces 13 (1934), pp. 230-237.

16. Leon Festinger, "Behavioral Support for Opinion Change," Public Opinion Quarterly 28 (1964), pp. 404-417.

17. Irving Crespi, "Attitude Measurement, Theory, and Prediction," Public Opinion Quarterly 41 (1977), pp. 285-294.

18. Phillip J. Tichenor, G.A. Donahue, C.N. Olien, and J.K. Bowers, "Environment and Public Opinion," Journal of Environmental Education 2 (Summer 1971), pp. 38-42.

19. Lane Burrus-Bammel, "Information's Effect on Attitude: A Longitudinal Study," Journal of Environmental Education 9 (Summer 1978), pp. 41-50.

20. Gordon L. Bultena, David L. Rogers and Karen A. Conner, "Toward Explaining Citizens Knowledge about a Proposed Reservoir," Journal of Environmental Education 9 (Winter 1977), pp. 24-36.

21. James E. Grunig and Keith R. Stamm, "Cognitive Strategies and the Resolution of Environmental Issues: A Second Study," Journalism Quarterly 56 (Winter 1979), in process. For an earlier study see Keith R. Stamm and James E. Grunig, "Communication Situations and Cognitive Strategies in Resolving Environmental Issues," Journalism Quarterly 54 (1977), pp. 713-720.

22. James E. Grunig, "Some Consistent Types of Employee Publics," Public Relations Review 1 (Winter 1976), pp. 17-36 and James E. Grunig, "Evaluating Employee Communication in a Research Operation," Public Relations Review 3 (Winter 1977), pp. 61-82.

23. James E. Grunig, "Defining Publics in Public Relations: The Case of a Suburban Hospital," Journalism Quarterly 55 (1978), pp. 109-118, 124.

24. James E. Grunig, "A Case Study of Organizational Information Seeking and Consumer Information Needs," Paper presented to the Association for Education in Journalism, San Diego, California, August 18-21, 1974.

25. James E. Grunig, "A New Measure of Public Opinions on Corporate Social Responsibility," Academy of Management Journal (December 1979), in process.

26. Grunig, "A Situational Explanation of Environmental Communication Behaviors and Attitudes: Two Studies," op. cit.

27. Grunig and Stamm, op. cit., Stamm and Grunig, op. cit.

28. Grunig, "A New Measure of Public Opinions on Corporate Social Responsibility," op. cit.

29. Grunig, "A Situational Explanation of Environmental Communication Behaviors and Attitudes: Two Studies," op. cit.

30. James E. Grunig, "Time Budgets, Level of Involvement, and Use of the Mass Media," Journalism Quarterly 56 (Summer 1979), in process.

31. Herbert Krugman, "The Impact of Television Advertising: Learning Without Involvement," Public Opinion Quarterly 29 (1965), pp. 349-356.

32. James E. Grunig and James B. Disbrow, "Developing a Probabilistic Model for Communications Decision Making," Communication Research 4 (1977), pp. 145-168.

33. See, for example, Grunig, "Evaluating Employee Communications in a Research Operation," op. cit.

34. Stamm and Grunig, op. cit., Grunig and Stamm, op. cit.

35. Keith R. Stamm and John E. Bowes, "Environmental Attitudes and Reaction," Journal of Environmental Education 3 (Spring 1972), pp. 56-60.

36. Grunig and Stamm, op. cit.

37. Source materials included "Economic Education Programs and Resources Directory," 2nd. ed., National Association of Manufacturers, Washington, D.C., 1978; "Organizations Providing Business & Economic Education Information," Standard Oil Company (Indiana), Chicago, 1978; "Contact: A Directory of Interpreting Business/Economic Education Programs," U.S. Chamber of Commerce, Washington, 1978; and discussions with John Sullivan of the U. S. Chamber of Commerce and Janet David and Lane Johnstone of the American Petroleum Institute.

38. Grunig and Disbrow, op. cit., Grunig, "A Situational Explanation of Environmental Communication Behaviors and Attitudes: Two Studies, op. cit., and Freeman Miller, "A Nationwide Study to Determine Under What Conditions Administrators of Physical Education Programs Will Engage in Public Relations,: Ph. D. Dissertation, University of Maryland, College Park, 1978.

39. Phillip J. Tichenor, G. A. Donohue, and C. N. Olien, "Mass Media Flow and Differential Growth in Knowledge," Public Opinion Quarterly 34 (197), pp. 159-170 and George A. Donohue, P. J. Tichenor, and C. N. Olien, "Mass Media and the Knowledge Gap: A Hypothesis Reconsidered," Communication Research 2 (1975), pp. 3-23.

40. See, for example, "Annual Message on Interpreting Business/Economic Education," U.S. Chamber of Commerce, Washington, D.C. (1978).

TABLE 1

Conditional Probabilities of Information Processing and Information Seeking

	High Involvement		Low Involvement	
	Information Processing	Information Seeking	Information Processing	Information Seeking
Problem Facing Behavior[a]				
Referent Criterion	85%	70%	69%	61%
No Referent Criterion	77%	66%	46%	31%
Constrained Behavior[b]				
Referent Criterion	77%	58%	64%	42%
No Referent Criterion	65%	41%	47%	32%
Routine Behavior[c]				
Referent Criterion	68%	42%	44%	44%
No Referent Criterion	65%	35%	48%	24%
Fatalistic Behavior[d]				
Referent Criterion	61%	33%	60%	25%
No Referent Criterion	49%	20%	30%	14%
All Situations				
Probability	65%	46%		
N[e]	2,560	2,547		

a High problem recognition, low constraint recognition.
b High problem recognition, high constraint recognition.
c Low problem recognition, low constraint recognition.
d Low problem recognition, high constraint recognition.
e Sample sizes differ because of missing data.

TABLE 2

Mean Scores on Situational Variables for Economic Situations[a]

	Problem Recognition	Level of Involvement	Constraint Recognition	Referent Criterion
Basic Economic Situations				
Size of Corporate Profits	2.6	2.4	3.2	2.3
Alternative Economic Systems	2.6	2.5	3.1	2.3
Supply and Demand	2.7	2.8	2.9	2.5
Business Consequences				
Quality of Goods and Services	3.5	3.5	2.5	2.9
Prices of Goods and Services	3.7	3.6	2.5	2.9
Pollution	3.2	3.3	2.4	3.0
Governmental Relationships				
Government Regulation of Business	2.8	2.7	3.1	2.5
Taxation of Business	2.5	2.3	3.1	2.3
Government Spending	2.9	2.9	3.0	2.6

[a]Range = 1 - 4

TABLE 3

Rotated Factor Loadings of Situational Variables on Two Factors

	High Involvement Factor						Low Involvement Factor					
	Problem Recognition	Level of Involvement	Constraint Recognition	Referent Criterion	Information Seeking	Information Processing	Problem Recognition	Level of Involvement	Constraint Recognition	Referent Criterion	Information Seeking	Information Processing
Basic Economic Situations												
Size of Corporate Profits	.16	.05	-.03	.12	.22	.16	.54	.74	.16	.73	.73	.53
Alternative Economic Systems	.26	.17	.00	.21	.20	.23	.39	.44	.08	.34	.60	.39
Supply and Demand	.27	.32	.17	.39	.57	.29	.52	.60	-.02	.4[illegible]	.33	.52
Business Consequences												
Quality of Goods and Services	.58	.71	.56	.64	.74	.52	.20	.13	-.20	.18	.28	.19
Prices of Goods and Services	.69	.84	.34	.63	.68	.57	.11	.13	-.11	.25	.13	.12
Pollution	.55	.41	.15	.54	.57	.55	.21	.24	-.06	.10	.31	.28
Governmental Relationships												
Government Regulation of Business	.20	.19	-.09	.22	.30	.21	.75	.72	.33	.68	.72	.73
Taxation of Business	.05	.10	-.21	.15	.21	.12	.80	.65	.50	.80	.64	.60
Government Spending	.25	.27	.00	.27	.37	.51	.57	.63	.17	.48	.64	.43

TABLE 4

Canonical Correlation of Situational Variables with Communication and Knowledge Variables

Situational Variables	High and Low Involvement Variate		High Involvement Variate	
	Standardized Coefficient	Predicted Probability[a]	Standardized Coefficient	Predicted Probability[a]
High Involvement Factors:				
Problem Recognition	.26		.53	
Level of Involvement	.10		.08	
Constraint Recognition	-.39		-.30	
Referent Criterion	-.05		.28	
Low Involvement Factors:				
Problem Recognition	.45		-.29	
Level of Involvement	.13		.08	
Constraint Recognition	-.07		.17	
Referent Criterion	.29		-.38	
Communication/Knowledge Variables				
High Involvement Factors:				
Information Seeking	.30	66%	.71	66%
Information Processing	.15	77%	.41	77%
Low Involvement Factors:				
Information Seeking	.33	70%	-.31	.17%
Information Processing	.45	85%	-.31	40%
Exposure to Economic News	.39		.01	
Economic Knowledge	.05		-.08	
Canonical Correlation	.62		.47	
Chi Square	212.73	48d.f.,.000	93.17	35d.f.,.000

a/ Taken from Table 1

TABLE 5

Discriminant Analysis of Economic Education Publics

	Discriminant Function	
	I	II
Standardized Coefficient of Discriminating Variables		
Business/Economics Courses*	-.33	.07
Grade Point Average	.10	-.27
Attitude Toward Business**	.28	-.25
Attitude Toward Government*	-.16	-.27
Liberal Political Philosophy	.25	-.08
Self/Parent Ownership of Stock	-.25	.26
Readership of Business Publications**	.25	.25
Readership of Newspaper Business Page**	.59	.16
Age**	.33	.01
Parent Education	.16	-.26
Male Sex**	.24	-.09
White Race	.04	-.33
Republican Party**	-.16	.42
Public Relations Major**	-.13	.17
Journalism Major*	.02	.46
Business Major**	.11	-.17
Centroids of Publics		
High/Low Involvement Issues (n=96)	.51	.01
High Involvement Issues (n=93)	-.35	.15
Neither Public (n=53)	-.28	-.30
Canonical Correlation[a]	.41*	.17

* $p < .05$

** $p < .01$

a The discriminant functions correctly placed 55% of the cases into original publics.

TABLE 6

Means of Cognitive Strategy Variables
By Type of Public

Basic Economic Situations	Total Sample b/ (n=294)	Public Type [a] High/Low Involvement (n=103)	High Involvement (n=107)	Neither (n=54)	F[c]
Supply and Demand:					
Pro Business	2.75	2.61	2.89	2.93	1.56
Anti Business	2.59	2.47	2.58	2.83	1.37
Hedging	4.09	3.75	4.13	4.67	3.46
Wedging	1.29	1.33	1.34	1.09	.90
Business Consequences					
Pollution:					
Pro Business	2.78	2.64	2.89	2.83	1.16
Anti Business	4.54	4.57	4.56	4.41	1.09
Hedging	5.46	5.17	5.69	5.60	1.39
Wedging	1.85	2.05	1.77	1.65	2.03
Governmental Relationships					
Government Regulation of Business:					
Pro Business	3.33	3.57	3.23	3.07	3.46
Anti Business	3.70	3.83	3.59	3.67	1.05
Hedging	5.70	6.08	5.46	5.44	2.35
Wedging	1.34	1.33	1.37	1.29	.09

a Range for hedging variables = 2-10, for wedging = 0-4, for all other variables = 1-5.

b Individual n's for the publics do not total 294 because of missing data.

c At 2 and 262 degrees of freedom, an F of 2.99 is significant at the .05 level and an F of 4.60 is significant at the .01 level.